

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/509,073
Source: PCT/10
Date Processed by STIC: 3/13/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/509,073

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 ✓ Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000
- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence.
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/509,073

DATE: 03/13/2005
TIME: 12:00:45

Input Set : A:\PTO.FY.txt
Output Set: N:\CRF4\03132005\J509073.raw

see item 4
on Error Summary
Sheet

invalid numeric identifier
use 51107
E--> <100> Kurume University
E--> 0
6 <120> TITLE OF INVENTION: Gene mina53 involved in cancer, Protein Mina53 and
7 Monoclonal Antibody Thereof
9 <130> FILE REFERENCE: JFH15228-PCT
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/509,073
C--> 11 <141> CURRENT FILING DATE: 2004-10-12
11 <160> NUMBER OF SEQ ID NOS: 3

*Suggestion: Consult
Sequence Rules*

ERRORED SEQUENCES

13 <210> SEQ ID NO: 1
14 <211> LENGTH: 464
15 <212> TYPE: DNA
16 <213> ORGANISM: Homo sapiens
18 <400> SEQUENCE: 1
E--> 19 atg
E--> 20 cca
E--> 21 aag
E--> 22 aaa
E--> 23 gca
E--> 24 aag
E--> 25 cct
E--> 26 aca
E--> 27 ggg
E--> 28 agt
E--> 29 ggg
E--> 30 aag
E--> 31 gaa
E--> 32 gag
E--> 33 ggg
E--> 34 ccg
E--> 35 gct
E--> 36 ccc
37 Met
W--> 38 Pro
W--> 39 Lys
W--> 40 Lys
W--> 41 Ala
W--> 42 Lys
W--> 43 Pro
W--> 44 Thr

**Does Not Comply
Corrected Diskette Needed**

*do not represent a coding sequence
this way (see attached sample
sequence listing for VALID format)*

see next page

2

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/509,073

DATE: 03/13/2005

TIME: 12:00:45

Input Set : A:\PTO.FY.txt

Output Set: N:\CRF4\03132005\J509073.raw

W--> 1388 Val
W--> 1389 Leu
W--> 1390 Ser
W--> 1391 Leu
W--> 1392 Trp
W--> 1393 Thr
W--> 1394 Glu
W--> 1395 Cys
W--> 1396 Leu
W--> 1397 Ile
W--> 1398 Gln
W--> 1399 Val
W--> 1400 Val
W--> 1401 ***
W--> 1409 455
E--> 1414 460
E--> 1418 464

invalid

Due to number of pages showing invalid format, these pages shown as samples of global error

1424 <210> SEQ ID NO: 2
1425 <211> LENGTH: 465
1426 <212> TYPE: DNA
1427 <213> ORGANISM: Mus musculus
1429 <400> SEQUENCE: 2

E--> 1430 atg
E--> 1431 cca
E--> 1432 aag
E--> 1433 aaa
E--> 1434 gtg
E--> 1435 cag
E--> 1436 ccc
E--> 1437 aca
E--> 1438 ggg
E--> 1439 gat
E--> 1440 gag
E--> 1441 aac
E--> 1442 gaa
E--> 1443 gaa
E--> 1444 gag
E--> 1445 tct
E--> 1446 gtt
E--> 1447 cct
1448 Met
W--> 1449 Pro
W--> 1450 Lys
W--> 1451 Lys
W--> 1452 Val
W--> 1453 Gln
W--> 1454 Pro
W--> 1455 Thr
W--> 1456 Gly

same type of error as in sequence 1.

Sequence 3 shows same type of error, too.

see p. 3

10/599,073 3

Delete at end of file

☐
☐ 1/7
☐
☐ 1
☐
☐
☐

see attached sample sequence
listing

```

<110>      Smith, John;  Smithgene Inc.

<120>      Example of a Sequence Listing

<130>      01-00001

<140>      PCT/EP98/00001
<141>      1998-12-31

<150>      US 08/999,999
<151>      1997-10-15

<160>      4

<170>      PatentIn version 2.0

<210>      1
<211>      389
<212>      DNA
<213>      Paramecium sp.

<220>
<221>      CDS
<222>      (279)...(389)

<300>
<301>      Doe, Richard
<302>      Isolation and Characterization of a Gene Encoding a
              Protease from Paramecium sp.
              Journal of Genes
<303>
<304>      1
<305>      4
<306>      1-7
<307>      1988-06-31
<308>      123456
<309>      1988-06-31

<400>      1
agctgtagtc  attcctgtgt  cctcttctct  ctgggcttct  caccctgcta  atcagatctc      60

agggagagtg  tcttgacctt  cctctgcctt  tgcagcttca  caggcaggca  ggcaggcagc      120

tgatgtggca  attgctggca  gtgccacagg  cttttcagcc  aggcttaggg  tgggttcgcg      180

cgcgggcgcg  cgccccctct  cgcgctctct  tcgcgcctct  ctctcgctct  cctctcgctc      240

```

Consult this

ggacctgatt aggtgagcag gaggaggggg cagtttagc atg gtt tca atg ttc agc 296
Met Val Ser Met Phe Ser
1 5

ttg tct ttc aaa tgg cct gga ttt tgt ttg ttt gtt tgt ttg ttc caa 344
Leu Ser Phe Lys Trp Pro Gly Phe Cys Leu Phe Val Cys Leu Phe Gln
10 15 20

tgt ccc aaa gtc ctc ccc tgt cac tca tca ctg cag ccg aat ctt 389
Cys Pro Lys Val Leu Pro Cys His Ser Ser Leu Gln Pro Asn Leu
25 30 35

<210> 2
<211> 37
<212> PRT
<213> Paramecium sp.

FYI: ↑ do NOT use TAB codes between amino acid numbers. Use space characters

<400> 2
Met Val Ser Met Phe Ser Leu Ser Phe Lys Trp Pro Gly Phe Cys Leu
1 5 10 15

Phe Val Cys Leu Phe Gln Cys Pro Lys Val Leu Pro Cys His Ser Ser
20 25 30

Leu Gln Pro Asn Leu
35

<210> 3
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Designed peptide based on size and polarity to act as a linker between the alpha and beta chains of Protein XYZ.

<400> 3
Met Val Asn Leu Glu Pro Met His Thr Glu Ile
1 5 10

<210> 4
<400> 4
000

identifiers and their accompanying information as shown in the following table. The numeric identifier shall be used only in the "Sequence Listing." The order and presentation of the items of information in the "Sequence Listing" shall conform to the arrangement given below. Each item of information shall begin on a new line and shall begin with the numeric identifier enclosed in angle brackets as shown. The submission of those items of information designated with an "M" is mandatory. The submission of those items of information designated with an "O" is optional. Numeric identifiers <110> through <170> shall only be set forth at the beginning of the "Sequence Listing." The following table illustrates the numeric identifiers.

| Numeric Identifier | Definition | Comments and Format | Mandatory (M) or Optional (O) |
|--------------------|-------------------------------|---|--|
| <110> | Applicant | Preferably max. of 10 names; one name per line; preferable format: Surname, Other Names and/or Initials | M |
| <120> | Title of Invention | | M |
| <130> | File Reference | Personal file reference | M when filed prior to assignment of appl. number |
| <140> | Current Application Number | Specify as: US 07/999,999 or PCT/US96/99999 | M, if available |
| <141> | Current Filing Date | Specify as: yyyy-mm-dd | M, if available |
| <150> | Prior Application Number | Specify as: US 07/999,999 or PCT/US96/99999 | M, if applicable include priority documents under 35 USC 119 and 120 |
| <151> | Prior Application Filing Date | Specify as: yyyy-mm-dd | M, if applicable |
| <160> | Number of SEQ ID NOs | Count includes total number of SEQ ID NOs | M |
| <170> | Software | Name of software used to create the Sequence Listing | O |
| <210> | SEQ ID NO: #: | Response shall be an integer representing the SEQ ID NO shown | M |
| <211> | Length | Respond with an integer expressing the number of bases or amino acid residues | M |

<212>

Type

Whether presented sequence molecule is DNA, RNA, or PRT (protein). If a nucleotide sequence contains both DNA and RNA fragments, the type shall be "DNA." In addition, the combined DNA/RNA molecule shall be further described in the <220> to <223> feature section.

<213>

Organism

Scientific name, i.e. Genus/species, Unknown or Artificial Sequence. In addition, the "Unknown" or "Artificial Sequence" organisms shall be further described in the <220> to <223> feature section.

M

<220>

Feature

Leave blank after <220>. <221-223> provide for a description of points of biological significance in the sequence.

M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence; if ORGANISM is "Artificial Sequence" or "Unknown"; if molecule is combined DNA/RNA.

<221>

Name/Key

Provide appropriate identifier for feature, preferably from WIPO Standard ST.25 (1998), Appendix 2, Tables 5 and 6

M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence

<222>

Location

Specify location within sequence; where appropriate state number of first and last bases/amino acids

M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified

in feature

base was used in
a sequence

| | | | |
|-------|---------------------------|--|---|
| <223> | Other Information | Other relevant information; four lines maximum | M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence; if ORGANISM is "Artificial Sequence" or "Unknown"; if molecule is combined DNA/RNA. |
| <300> | Publication Information | Leave blank after <300> | 0 |
| <301> | Authors | Preferably max of ten named authors of publication; specify one name per line; preferable format: Surname, Other Names and/or Initials | 0 |
| <302> | Title | | 0 |
| <303> | Journal | | 0 |
| <304> | Volume | | 0 |
| <305> | Issue | | 0 |
| <306> | Pages | | 0 |
| <307> | Date | Journal date on which data published; specify as yyyy-mm-dd, MMM-yyyy or Season-yyyy | 0 |
| <308> | Database Accession Number | Accession number assigned by database including database name | 0 |
| <309> | Database Entry Date | Date of entry in database; specify as yyyy-mm-dd or MMM-yyyy | 0 |
| <310> | Patent Document Number | Document number; for patent-type citations only. Specify as, for example, US 07/999,999 | 0 |

| | | | |
|-------|--------------------|--|---|
| <311> | Patent Filing Date | Document filing date, for patent-type citations only; specify as yyyy-mm-dd | O |
| <312> | Publication Date | Document publication date, for patent-type citations only; specify as yyyy-mm-dd | O |
| <313> | Relevant Residues | FROM (position) TO (position) | O |
| <400> | Sequence | SEQ ID NO should follow the numeric identifier and should appear on the line preceding the actual sequence | M |

5. Section 1.824 is revised to read as follows:

1.824 Form and format for nucleotide and/or amino acid sequence submissions in computer readable form.

(a) The computer readable form required by 1.821(e) shall meet the following specifications:

(1) The computer readable form shall contain a single "Sequence Listing" as either a diskette, series of diskettes, or other permissible media outlined in paragraph (c) of this section.

(2) The "Sequence Listing" in paragraph (a) (1) of this section shall be submitted in American Standard Code for Information Interchange (ASCII) text. No other formats shall be allowed.

(3) The computer readable form may be created by any means, such as word processors, nucleotide/amino acid sequence editors or other custom computer programs; however, it shall conform to all specifications detailed in this section.

(4) File compression is acceptable when using diskette media, so long as the compressed file is in a self-extracting format that will decompress on one of the systems described in paragraph (b) of this section.

(5) Page numbering shall not appear within the computer readable form version of the "Sequence Listing" file.

(6) All computer readable forms shall have a label permanently affixed thereto on which has been hand-printed or typed: the name of the applicant, the title of the invention, the date on which the data were recorded on the computer readable form, the operating system used, a reference number, and an application serial number and filing date, if known.

(b) Computer readable form submissions must meet these format requirements:

(1) Computer: IBM PC/XT/AT, or compatibles, or Apple Macintosh;

(2) Operating System: MS-DOS, Unix or Macintosh;